

**EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT

REGARDING PROPOSED CHANGES TO THE
CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE
AND
CALIFORNIA BUILDING CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PARTS 1 & 2**

LEGEND FOR EXPRESS TERMS

1. Existing California amendments or code language being modified: All such language appears in *italics*, modified language is underlined.
2. New California amendments: All such language appears underlined and in italics.
3. Repealed text: All such language appears in ~~strikeout~~.

**Title 24, Part 1
California Building Standards Administrative Code**

Chapter 6, Article 11

11.2.2 Evaluation Procedures for NPC 3 and NPC-3R

The following steps shall determine if the building meets the criteria for NPC 3 or NPC 3R:

- a) Identify the specific nonstructural components and equipment that are subject to the requirements of NPC 2 and NPC 3 or NPC 3R;
- b) Conduct an inventory of components and equipment specified in Table 11.1, NPC ~~23~~ and NPC 3R, noting whether the components and equipment are anchored or braced;

Exception: Any general acute care hospital facility located in both a “rural area” as defined in Section 70059.1, Division 5, Title 22 and Seismic Zone 3 shall comply with the fire sprinkler system anchorage and bracing requirements of NFPA 13, 1994 edition or subsequent standard by January 1, 2013.

- c) Determine the level of NPC-3 conformance desired.
 1. Buildings classified as SPC 1 or SPC 2 are permitted to meet the NPC 3 performance level, or the NPC-3R performance level. See also Section 11.2.3(c).
 2. Buildings classified as SPC 3 or higher must meet the NPC 3 performance level.
- ~~e)-d)~~ Determine if the anchorage or bracing of the identified components and equipment complies with the following conditions:
 1. Installed under a permit issued by OSHPD. Drawings showing the installation and bearing an OSHPD approval stamp are required to show that the installation conforms to Part 2, Title 24; or,
 2. Reviewed and approved by the Department of General Services, Office of Architecture and Construction, Structural Safety Section. Drawings showing: a) the installation; b) bear an Office of Architecture and Construction, Structural Safety Section approval stamp; and c) a five-digit project number on the approval stamp that begins with an “H” prefix, are required to demonstrate that the installation conforms to Part 2, Title 24. It shall also be demonstrated by a written report submitted by the structural engineer, acceptable to the enforcement agency, that an investigation of the anchorage and bracing of components and

equipment identified in Section 11.2.2(a) shows it to be constructed in reasonable conformity with these drawings.

Anchorage and bracing of elements that comply with either of these conditions are considered to meet the requirements of NPC 2 and NPC 3 or NPC 3R.

Installation is defined as that which shows the size and type of material for all components of the system including the anchor or fastener manufacturer (if proprietary), type, total number and embedment if connected to structural concrete, masonry or wood.

d) ~~e)~~ If the components and equipment inventoried in 11.2.2(b) ~~is~~ are anchored or braced, but ~~does~~ do not meet the requirements of Section 11.2.2(~~e-d~~), determine if the bracing and anchorage is sufficient to meet the code requirements specified in Table 11.1 for NPC 3 or NPC 3R. The bracing capacity shall be determined by calculations based upon information shown in the construction documents. If these documents are incomplete or unavailable, the evaluation shall be based on the as-built conditions, with the capacity of fasteners to masonry, concrete, or wood determined by approved tests. ~~and For NPC 3R, the investigation of the adequacy of anchorage and bracing may be limited to the connection of the component or equipment to the support when the total reaction at the point of support (including the application of F_p) is less than:~~

1. 250 pounds for components or equipment attached to light frame walls. For the purposes of this requirement, the sum of the absolute value of all reactions due to component loads on a single stud shall not exceed 250 pounds.
2. 1,000 pounds for components or equipment attached to roofs, or walls of reinforced concrete or masonry construction.
3. 2,000 pounds for components or equipment attached to floors or slabs-on-grade.

Exception: If the anchorage or bracing is configured in a manner that results in significant torsion on a supporting structural element, the effects of the nonstructural reaction force on the structural element shall be considered in the anchorage design.

~~e)~~ f) If any of the items inventoried in 11.2.2(b) ~~is~~ are inadequately anchored or braced, ~~as determined by Section 11.2.2(d), the building shall be placed in NPC 2.~~

NOTATION:

- Authority: Health and Safety Code Section 129850, 1330025 and 130005(b)
- Reference: Health and Safety Code Section 130005 (b)

11.2.3 Evaluation Procedures for NPC 4

The following steps shall be followed to determine if the building meets the criteria for NPC 4:

- a) Identify the specific nonstructural components and equipment that are subject to the requirements of NPC 2 through NPC 4;
- b) Conduct an inventory of components and equipment specified in Table 11.1, NPC 2 through NPC 4, noting whether the components and equipment are anchored or braced;
- c) Determine if the anchorage or bracing of the identified components and equipment complies with one of the following conditions:
 1. Installed under a permit issued by OSHPD. Drawings showing the installation and bearing an OSHPD approval stamp are required to show that the installation conforms to Part 2, Title 24, ~~or~~ Installation or retrofit of components that were designed to meet NPC-3R requirements must be shown to meet the anchorage and bracing requirements of the California Building Code for new construction. Components designed to meet NPC 3R requirements that do not meet the anchorage and bracing requirements for new construction shall be retrofitted to meet those requirements; or

2. Reviewed and approved by the Department of General Services, Office of Architecture and Construction, Structural Safety Section. Drawings showing: a) the installation; b) bear an Office of Architecture and Construction, Structural Safety Section approval stamp; and c) a five digit project number on the approval stamp that begins with an "H" prefix, are required to demonstrate that the installation conforms to Part 2, Title 24. It shall also be demonstrated by a written report submitted by the structural engineer, acceptable to the enforcement agency, that an investigation of the anchorage and bracing of components and equipment identified in Section 11.2.3(a) shows it to be constructed in reasonable conformity with these drawings.

Anchorage and bracing of elements that comply with either of these conditions are considered to meet the requirements of NPC 4.

Installation is defined as that which shows the size and type of material for all components of the system including the anchor or fastener manufacturer (if proprietary), type, total number and embedment if connected to structural concrete, masonry or wood.

- d) If the components and equipment inventoried in 11.2.4(b) are anchored or braced, but do not meet the requirements of Section 11.2.4(c), determine if the bracing and anchorage is sufficient to meet the code requirements specified in Table 11.1. The bracing capacity shall be determined by calculations based upon information shown in the construction documents. If these documents are incomplete or unavailable, the evaluation shall be based on the as-built conditions, with the capacity of fasteners to masonry, concrete, or wood determined by approved tests, and
- e) If any of the items inventoried in 11.2.4(b) is unanchored or inadequately braced as determined by Section 11.2.4(d), the building shall be placed in NPC 3.

NOTATION:

- Authority: Health and Safety Code Section 129850, 1330025 and 130005(b)
- Reference: Health and Safety Code Section 130005 (b)

Table 11.1
Nonstructural Performance Categories

Timeframes	Nonstructural Performance Category ¹	Description
	NPC 1	Buildings with equipment and systems not meeting the bracing and anchorage requirements of any other NPC.
January 1, 2002	NPC 2	<p>The following are braced or anchored in accordance with Part 2, Title 24¹:</p> <ul style="list-style-type: none"> communications systems, emergency power supply, bulk medical gas systems, fire alarm systems; and emergency lighting equipment and signs in the means of egress.
January 1, 2008	NPC 3/NPC-3R	<p>The building meets the criteria for NPC "2" and in critical care areas, clinical laboratory service spaces, pharmaceutical service spaces, radiological service spaces, and central and sterile supply areas, the following components meet the bracing and anchorage requirements of Part 2, Title 24²:</p> <ul style="list-style-type: none"> Nonstructural components, listed in the 1995 CBC, Part 2, Title 24, Table 16A-O, Part 2, and <p><u>Exception: For NPC-3R, lateral bracing of suspended ceiling systems may be omitted in rooms with a floor area less than 300 square feet.</u></p>

		<p><u>provided the room is not an intensive care or coronary care unit patient room, angiography laboratory, cardiac catheterization laboratory, delivery room, operating room, or post-operative recovery room.</u></p> <ul style="list-style-type: none"> Equipment, as listed in the 1995 CBC, Part 2, Title 24, Table 16A-O, “equipment” including equipment in the physical plant that service these areas. Exceptions: <ol style="list-style-type: none"> Seismic restraints need not be provided for cable trays, conduit and HVAC ducting. Seismic restraints may be omitted from piping systems, provided that an approved method of preventing release of the contents of the piping system in the event of a break is provided. Only elevator(s) selected to provide service to patient, surgical, obstetrical, and ground floors during interruption of normal power need meet the structural requirements of Part 2, Title 24¹. Fire sprinkler systems comply with the bracing and anchorage requirements of NFPA 13, 1994 edition or subsequent applicable standards. Exception: Acute care hospital facilities in both a rural area as defined by Section 70059.1, Division 5 of Title 22 and Seismic Zone 3 shall comply with the bracing and anchorage requirements of NFPA 13, 1994 edition or subsequent applicable standards by January 1, 2013.
	NPC 4	The building meets the criteria for NPC “3” and all architectural, mechanical, electrical systems, components and equipment, and hospital equipment meet the bracing and anchorage requirements of Part 2, Title 24 ² . This category is for classification purposes of the Office of Emergency Services.
January 1, 2030	NPC 5	The building meets the criteria for NPC “4” and on-site supplies of water and holding tanks for wastewater, sufficient for 72 hours emergency operations, are integrated into the building plumbing systems. As an alternative, hook-ups to allow for the use of transportable sources of water and sanitary waste water disposal have been provided. An on-site emergency system as defined within Part 3, Title 24 is incorporated into the building electrical system for critical care areas. Additionally, the system shall provide for radiological service and an onsite fuel supply for 72 hours of acute care operation.

¹ For the purposes of ~~Article 11-NPC 2~~ and NPC 5, all enumerated items within Table 11.1 shall meet the requirements of Section ~~1630B~~ 1632A by the specified timeframe as indicated by their respective NPC.

² For the purposes of NPC 3 and NPC 4, all enumerated items within Table 11.1 shall meet the requirements of the 1998 CBC, Section 1630B, by the specified timeframe. For the purposes of NPC 3R, all enumerated items within Table 11.1 shall meet the requirements of the 1995 CBC, Section 1630A, using $I_p=1.0$, by the specified timeframe.

NOTATION:

- Authority: Health and Safety Code Section 129850, 1330025 and 130005(b)
- Reference: Health and Safety Code Section 130005 (b)

Title 24, Part 2, Volume 2
California Building Code

Chapter 16A

Section: 1644A.13.1.2

1644A.13.1.2 [For OSHPD 1&4] Critical nonstructural components and systems, as defined in Table 11.1, Chapter 6, California Building Standards Administrative Code, and all components and systems in buildings in seismic performance categories SPC-3 through SPC-5 shall meet the requirements for new buildings, Section 1632A. All other elements of structures, nonstructural components and equipment supported by structures shall comply with provisions of Section 1645A.7 and this section.

EXCEPTIONS: 1. Anchorage and bracing of nonstructural components in buildings in seismic performance categories SPC-1 and SPC-2 with a performance level of NPC-3R may comply with the provisions of Section 1630A of the 1995 California Buildings Code using an importance factor $I_p=1.0$. The capacity of welds, anchors and fasteners shall be determined in accordance with requirements of the 2001 California Building Code.

2. Anchorage and bracing of nonstructural components in buildings in seismic performance categories SPC-1 and SPC-2 with a performance level of NPC-3 or higher, and SPC-3 and SPC-4, may comply with the provisions of Section 1630B of the 1998 California Buildings Code using an importance factor $I_p=1.5$. The capacity of welds, anchors and fasteners shall be determined in accordance with requirements of the 2001 California Building Code.

A continuous load path of sufficient strength and stiffness between the component and the supporting structure shall be verified. Local elements of the supporting structure shall be verified for the component loads where they control the design of the elements or their connections. Increases in F_p due to anchorage conditions (for example shallow anchors) need not be considered. For NPC-3R, the adequacy of load path for nonstructural elements need only be verified when the total reaction at the point of support (including the application of F_p) exceeds the following limits:

1. 250 pounds for components or equipment attached to light frame walls. For the purposes of this requirement, the sum of the absolute value of all reactions due to component loads on a single stud shall not exceed 250 pounds.
2. 1,000 pounds for components or equipment attached to roofs, or walls of reinforced concrete or masonry construction.
3. 2,000 pounds for components or equipment attached to floors or slabs-on-grade.

Exception: If the anchorage or bracing is configured in a manner that results in significant torsion on a supporting structural element, the effects of the nonstructural reaction force on the structural element shall be considered in the anchorage design.

Remainder of Section unchanged

NOTATION:

- Authority: Health and Safety Code Section 129850, 1330025 and 130005(b)
- Reference: Health and Safety Code Section 130005 (b)